RADIOLOGICAL RISK IN FLORIDA
Need for EPA/FDEP/FDOH Consistency

WHY ARE WE HERE?

We wish to send a letter to Governor Chiles seeking a consistent Florida policy on acceptable risk in the treatment of issues involving phosphogypsum (a NESHAPs issue) and phosphate slag (a CERCLA issue). There are different acceptable risk values that should be reconciled.

FDOH	E-4 acceptable *annual* risk from radiation exposure (lifetime = E-2)
EPA	E-4 to E-6 lifetime
FDEP	E-6 lifetime

WHY DO THESE DISCREPANCIES EXIST?

The differences in acceptable risk reflect differences in risk management philosophy.

- FDOH and radiation programs generally limited *annual* radiation dose and have accepted annual risks of E-4. This risk management philosophy is supported by the Congressionally Chartered National Council on Radiation Protection and Measurements (NCRP) which describes E-4 to E-6 as a reasonable annual risk level. The current NCRP recommended annual dose limit of 100 to 500 millirem translates to about E-3 to E-2 lifetime risk.

- FDEP has sent us letters citing Florida statutes that call for an E-6 lifetime risk for contaminated site cleanups.

- EPA Superfund's acceptable lifetime risk range is E-4 to E-6. The upper end of this range, E-4, corresponds to an annual radiation dose of about 15 millirem.

- Some states and health physicists believe that because the risk from naturally occurring radioactive materials is so high (radium in soil lifetime risk is about E-4), radioactive cleanup goals should be more lax (possibly up to E-2).

- Some states and health physicists believe that radionuclides that occur in nature (whether technologically enhanced or not), should be treated differently from those that are man-made as from a nuclear reactor. (For example, SC and FL believe higher risk levels should be allowed from naturally occurring nuclides; TN and KY do not)

- EPA is now using risk rather than dose to compare alternative environmental actions. This will be a paradigm shift for many in the radiation community who are accustomed to evaluating annual doses against NCRP or Nuclear Regulatory Commission regulations, and not dealing with risk directly.

OUR RECOMMENDATION:

- E-4 lifetime risk above background is achievable for radiological issues.
- FDEP and FDOH acceptable risk values range from E-6 to E-2. We seek a common ground Florida policy which would probably be around E-4 for radiological risks.